

Appl. No. 10/757,859
Docket No. 14XZ126397/GEM-0128

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

1. (previously presented) An imaging device comprising:
means for display;
means for processing image data in order to display the data in the form of a 3D model; and
a user interface;
wherein the means for processing is configured to acquire at least two points positioned in the 3D model via the user interface, to deduce the positioning of an axis defined by the two points in the 3D model, and to reorient the 3D model such that the axis is in a predefined orientation relative to a plane of the means for display; and
wherein the means for processing is configured to orient the 3D model in such a manner that the axis defined by the two points indicated by the user is parallel to the plane of the means for display.
2. (original) The device according to claim 1 comprising:
means for positioning an image acquisition system relative to an object, which means implement positioning of the acquisition system to correspond with an orientation of the model as displayed on the means for display.
3. (original) The device according to claim 2 comprising:
an image acquisition system; and
means for orienting by controlling an angular position of the system to correspond with an orientation of the 3D model as defined on means for display.

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4-6. (canceled)

7. (original) The device according to claim 1 wherein the means for processing implements rotation of the 3D model about the axis defined by the two points indicated by the user.

8. (original) The device according to claim 2 wherein the means for processing implements rotation of the 3D model about the axis defined by the two points indicated by the user.

9. (original) The device according to claim 3 wherein the means for processing implements rotation of the 3D model about the axis defined by the two points indicated by the user.

10. (canceled)

11. (original) The device according to claim 1 wherein the means for processing causes display of a section view of the 3D model on a section plane which presents a predefined orientation relative to the axis indicated by the user.

12. (original) The device according to claim 2 wherein the means for processing causes display of a section view of the 3D model on a section plane which presents a predefined orientation relative to the axis indicated by the user.

13. (original) The device according to claim 3 wherein the means for processing causes display of a section view of the 3D model on a section plane which presents a predefined orientation relative to the axis indicated by the user.

14. (canceled)

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15. (original) The device according to claim 7 wherein the means for processing causes display of a section view of the 3D model on a section plane which presents a predefined orientation relative to the axis indicated by the user.

16. (original) The device according to claim 11 wherein the means for processing moves the section plane progressively under control from the user interface.

17. (original) The device according to claim 12 wherein the means for processing moves the section plane progressively under control from the user interface.

18. (original) The device according to claim 13 wherein the means for processing moves the section plane progressively under control from the user interface.

19. (canceled)

20. (original) The device according to claim 15 wherein the means for processing moves the section plane progressively under control from the user interface.

21. (original) The device according to claim 11 wherein the means for processing moves the section plane in the 3D model while keeping the section plane in a predefined orientation.

22. (original) The device according to claim 16 wherein the means for processing moves the section plane in the 3D model while keeping the section plane in a predefined orientation.

23. (original) The device according to claim 11 wherein the predefined orientation of the section plane is orientated parallel to the axis indicated by the user.

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24. (previously presented) The device according to claim 17 wherein the means for processing moves the section plane in the 3D model while keeping the section plane in a predefined orientation.

25. (previously presented) The device according to claim 12 wherein the means for processing moves the section plane in the 3D model while keeping the section plane in a predefined orientation.

26. (original) The device according to claim 1 wherein the means for processing acquires at least three points positioned in the 3D model by means of the user interface, to deduce two axes therefrom each passing through a pair of the points, and to reorient the 3D model in such a manner that the two axes are substantially parallel to the means for display.

27. (original) The device according to claim 2 wherein the means for processing acquires at least three points positioned in the 3D model by means of the user interface, to deduce two axes therefrom each passing through a pair of the points, and to reorient the 3D model in such a manner that the two axes are substantially parallel to the means for display.

28. (original) The device according to claim 3 wherein the means for processing acquires at least three points positioned in the 3D model by means of the user interface, to deduce two axes therefrom each passing through a pair of the points, and to reorient the 3D model in such a manner that the two axes are substantially parallel to the means for display.

29. (canceled)

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30. (original) The device according to claim 7 wherein the means for processing acquires at least three points positioned in the 3D model by means of the user interface, to deduce two axes therefrom each passing through a pair of the points, and to reorient the 3D model in such a manner that the two axes are substantially parallel to the means for display.

31. (original) The device according to claim 11 wherein the means for processing acquires at least three points positioned in the 3D model by means of the user interface, to deduce two axes therefrom each passing through a pair of the points, and to reorient the 3D model in such a manner that the two axes are substantially parallel to the means for display.

32. (original) The device according to claim 16 wherein the means for processing acquires at least three points positioned in the 3D model by means of the user interface, to deduce two axes therefrom each passing through a pair of the points, and to reorient the 3D model in such a manner that the two axes are substantially parallel to the means for display.

33. (original) The device according to claim 21 wherein the means for processing acquires at least three points positioned in the 3D model by means of the user interface, to deduce two axes therefrom each passing through a pair of the points, and to reorient the 3D model in such a manner that the two axes are substantially parallel to the means for display.

34. (original) The device according to claim 23 wherein the means for processing acquires at least three points positioned in the 3D model by means of the user interface, to deduce two axes therefrom each passing through a pair of the points, and to reorient the 3D model in such a manner that the two axes are substantially parallel to the means for display.

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35. (original) The device according to claim 1 wherein the means for processing acquires a plurality of points, to deduce a plurality of axes therefrom that are not all mutually parallel, each passing through a different pair of points selected from the plurality of points, and to reorient the 3D model bringing the set of the axes as close as possible to parallel with the plane of the means for display.

36. (original) The device according to claim 2 wherein the means for processing acquires a plurality of points, to deduce a plurality of axes therefrom that are not all mutually parallel, each passing through a different pair of points selected from the plurality of points, and to reorient the 3D model bringing the set of the axes as close as possible to parallel with the plane of the means for display.

37. (original) The device according to claim 3 wherein the means for processing acquires a plurality of points, to deduce a plurality of axes therefrom that are not all mutually parallel, each passing through a different pair of points selected from the plurality of points, and to reorient the 3D model bringing the set of the axes as close as possible to parallel with the plane of the means for display.

38. (canceled)

39. (original) The device according to claim 7 wherein the means for processing acquires a plurality of points, to deduce a plurality of axes therefrom that are not all mutually parallel, each passing through a different pair of points selected from the plurality of points, and to reorient the 3D model bringing the set of the axes as close as possible to parallel with the plane of the means for display.

40. (original) The device according to claim 11 wherein the means for processing acquires a plurality of points, to deduce a plurality of axes therefrom that are

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not all mutually parallel, each passing through a different pair of points selected from the plurality of points, and to reorient the 3D model bringing the set of the axes as close as possible to parallel with the plane of the means for display.

41. (original) The device according to claim 16 wherein the means for processing acquires a plurality of points, to deduce a plurality of axes therefrom that are not all mutually parallel, each passing through a different pair of points selected from the plurality of points, and to reorient the 3D model bringing the set of the axes as close as possible to parallel with the plane of the means for display.

42. (original) The device according to claim 21 wherein the means for processing acquires a plurality of points, to deduce a plurality of axes therefrom that are not all mutually parallel, each passing through a different pair of points selected from the plurality of points, and to reorient the 3D model bringing the set of the axes as close as possible to parallel with the plane of the means for display.

43. (original) The device according to claim 23 wherein the means for processing acquires a plurality of points, to deduce a plurality of axes therefrom that are not all mutually parallel, each passing through a different pair of points selected from the plurality of points, and to reorient the 3D model bringing the set of the axes as close as possible to parallel with the plane of the means for display.

44. (original) The device according to claim 26 wherein the means for processing acquires a plurality of points, to deduce a plurality of axes therefrom that are not all mutually parallel, each passing through a different pair of points selected from the plurality of points, and to reorient the 3D model bringing the set of the axes as close as possible to parallel with the plane of the means for display.

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45. (previously presented) The device according to claim 1, the device being in command communication with an image sensor, the device further comprising:
means for identifying a final orientation of the 3D model as confirmed by the user;
and

means for producing a command signal for physically orienting the image sensor relative to the user in correspondence with the final confirmed orientation.

46. (previously presented) The device according to claim 2, the device being in command communication with an image sensor, the device further comprising:
means for identifying a final orientation of the 3D model as confirmed by the user;
and

means for producing a command signal for physically orienting the image sensor relative to the user in correspondence with the final confirmed orientation.

47. (previously presented) The device according to claim 3, the device being in command communication with an image sensor, the device further comprising:
means for identifying a final orientation of the 3D model as confirmed by the user;
and

means for producing a command signal for physically orienting the image sensor relative to the user in correspondence with the final confirmed orientation.

48. (canceled)

49. (previously presented) The device according to claim 7, the device being in command communication with an image sensor, the device further comprising:
means for identifying a final orientation of the 3D model as confirmed by the user;
and

means for producing a command signal for physically orienting the image sensor relative to the user in correspondence with the final confirmed orientation.

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50. (previously presented) The device according to claim 11, the device being in command communication with an image sensor, the device further comprising:
means for identifying a final orientation of the 3D model as confirmed by the user;
and
means for producing a command signal for physically orienting the image sensor relative to the user in correspondence with the final confirmed orientation.

51. (previously presented) The device according to claim 16, the device being in command communication with an image sensor, the device further comprising:
means for identifying a final orientation of the 3D model as confirmed by the user;
and
means for producing a command signal for physically orienting the image sensor relative to the user in correspondence with the final confirmed orientation.

52. (previously presented) The device according to claim 21, the device being in command communication with an image sensor, the device further comprising:
means for identifying a final orientation of the 3D model as confirmed by the user;
and
means for producing a command signal for physically orienting the image sensor relative to the user in correspondence with the final confirmed orientation.

53. (previously presented) The device according to claim 23, the device being in command communication with an image sensor, the device further comprising:
means for identifying a final orientation of the 3D model as confirmed by the user;
and
means for producing a command signal for physically orienting the image sensor relative to the user in correspondence with the final confirmed orientation.

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54. (previously presented) The device according to claim 26, the device being in command communication with an image sensor, the device further comprising: means for identifying a final orientation of the 3D model as confirmed by the user; and
means for producing a command signal for physically orienting the image sensor relative to the user in correspondence with the final confirmed orientation.

55. (previously presented) The device according to claim 35, the device being in command communication with an image sensor, the device further comprising: means for identifying a final orientation of the 3D model as confirmed by the user; and
means for producing a command signal for physically orienting the image sensor relative to the user in correspondence with the final confirmed orientation.

56. (previously presented) A method for displaying a 3D model in imaging comprising:
providing means for display;
providing means for processing in order to display data in the form of a 3D model; and
providing a user interface fitted to the means for processing;
positioning at least two points in the 3D model by means of the user interface;
causing the means for processing to deduce therefrom the position of an axis defined by the points on the 3D model; and
causing the means for processing to reorient the 3D model such that the axis lies in a predefined orientation relative to and parallel with a plane of the means for display.

57. (currently amended) A computer program stored on computer-readable medium ~~carrier~~ comprising code means that when executed on a computer carry out the steps of the means for processing of claim 56.

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58. (currently amended) A computer program stored on computer-readable medium ~~carrier~~ carrying code that when executed on a computer carry out the steps of the means for processing of claim 56.